

## CLAIMS

1. Cathode unit for installation in a fluorescent tube body (3) belonging to a fluorescent tube (1), which cathode unit (5) comprises a cathode screen (15a, 15, 15'-15""), which partially surrounds an electrode (9) which is electrically insulated from the said cathode screen (15), a power supply device (11) arranged to make an electrical connection between the said electrode (9) and a contact (13); the said cathode screen (15) comprising a first end (19) facing towards the discharge, which first end (19) comprises a central opening (21), and a second end (39) facing towards the said contact (13), characterised in that the first end (19) of the cathode screen (15a, 15, 15'-15"") is designed with a rounded-off part (25) in order to facilitate the insertion of the cathode unit (5) in the said fluorescent tube body (3).

15 2. Cathode unit according to Claim 1, characterised in that the said cathode screen (15a) is designed with at least one side wall (2) essentially incident to a centre line (CL).

20 3. Cathode unit according to Claim 1 or 2, characterised in that the said cathode screen (15a, 15, 15'-15"") is manufactured in one piece.

25 4. Cathode unit according to Claims 1 to 3, characterised in that the said cathode screen (15a, 15, 15'-15"") is manufactured of metal.

30 5. Cathode unit according to any one of the preceding claims, characterised in that the said cathode screen (15a, 15, 15'-15"") is designed with at least one slot (31) within the area for the said power supply device (11).

35 6. Cathode unit according to any one of the preceding claims, characterised in that the said cathode screen (15a, 15, 15'-15"") is provided on the outside with a heat-insulating material (37).

7. Cathode unit according to any one of the preceding claims, characterised in that the outer side of the said cathode screen (15a, 15, 15'-15""), viewed in the longitudinal direction of the cathode screen (15), follows a straight line L essentially parallel to the longitudinal axis of the said fluorescent tube body.

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8. Cathode unit according to any one of the preceding claims, characterised in that the second end (39) of the said cathode screen (15a, 15, 15'-15"") is completely open.

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9. Cathode unit according to any one of the preceding claims, characterised in that the inner side (33) of the said cathode screen (15a, 15, 15'-15"") is coated with an electrically-insulating material.

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10. Method for manufacturing a fluorescent tube (1) comprising a fluorescent tube body (3), a cathode unit (5), which cathode unit (5) comprises a cathode screen (15a, 15, 15'-15"") which partially surrounds an electrode (9) provided with emitter material (23), which electrode (9) is electrically insulated from the said cathode screen (15), a power supply device (11) attached to a foot (7), which power supply device (11) is arranged to make an electrical connection between the said electrode (9) and a contact (13), the said cathode screen (15) comprising a first end (19) facing towards the discharge, which first end comprises a central opening (21), and a second end (39) facing towards the said contact (13), characterised by the

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stages:

- pressing the said cathode screen in one piece with the first end (19) being shaped with a rounded-off part (25);

- welding the cathode screen (15a, 15, 15'-15"") to a fixing device (17) that is attached to the said foot (7);

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- inserting the said cathode unit (5) in the said fluorescent tube body (3);

- removal of decomposition products of the emitter material (23) by pumping; and

- sealing the fluorescent tube (1) when all the decomposition products have been removed from the fluorescent tube (1).

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11. Fluorescent tube comprising at least one cathode unit (5) according to any one of the preceding claims.